

A PRELIMINARY LIST OF XYLARIACEOUS FUNGI OF EL CIELO BIOSPHERE
RESERVE, IN TAMAULIPAS, MEXICO

FELIPE SAN MARTIN GONZALEZ

Biodiversidad Tamaulipeca A.C.
Sierra Hermosa # 617 Fracc. Villa Real
87010 Cd. Victoria, Tamaulipas, México

Y

JACK D. ROGERS

Department of Plant Pathology
Washington State University
Pullman, WA 99164-6430, U.S.A.

ABSTRACT

Se enlistan 77 especies y taxa infraespecíficos de hongos xilariáceos colectados en la Reserva de la Biosfera El Cielo. Para cada taxon se indica el tipo de vegetación y el sustrato en que fue encontrado.

RESUMEN

Seventy seven species and infraspecific taxa of xylariaceous fungi collected in El Cielo Biosphere Reserve are listed. For each taxon, the vegetation type and the substrate, are recorded.

El Cielo Biosphere Reserve comprises an area of 144,530.051 ha. It is located in the southwestern portion of the state of Tamaulipas, in the region known as Sierra de Cucharas or Sierra de Guatemala, in the Sierra Madre Oriental. The reserve is circumscribed by parallels 22°55'30" and 23°25'50"N and meridians 99°05'50" and 99°26'30"W (Anonymous, 1985). Three main vegetation types prevail in the area: medium size subdeciduous tropical forest located between 200 and 800 meters above sea level (masl), cloud forest present between 700 and 1400 masl and oak-pine forest situated between 1400 and 2100 masl (Rzedowski, 1978).

The inventory of vascular plants for the reserve is well-documented (Lof, 1980; Puig & Bracho, 1987; Johnston et al., 1989), and the record of vertebrates seems to be essentially complete (Miksch & Sewall, 1942; Harrel, 1951; Hooper, 1953; Martin, 1955a, 1955b, 1958; Alvarez, 1963).

Mycological studies in the reserve are scarce and mostly deal with taxonomic aspects. The best studied groups are the Aphyllorphorales (Valenzuela & Chacón, 1991; Bandala et al., 1993), the Boletales (García, 1993), and dematiaceous Hyphomycetes (Heredia, 1994).

Xylariaceous fungi are primarily parasites and saprophytes of angiospermous plants, and even the coprophilous representatives of the family Xylariaceae (Pyrenomycetes, Sphaeriales) are nourished primarily by angiospermous remains and are considered to be specialized angiosperm saprophytes (San Martín & Rogers, 1995a).

The Xylariaceae previously recorded from the reserve are: Hernández et al. (1951) reported one species of *Daldinia* and one of *Xylaria*; Heredia (1989) listed *Daldinia concentrica* (Bolton:Fr.) Ces. & De Not., *D. vernicosa* (Schwein.) Ces. & De Not. = *D. fissa* C.G. Lloyd, *Entonaema liquescens* Moell., *Xylaria coccophora* Mont., *X. grammica* (Mont.) Fr., *X. magnoliae* J.D. Rogers, and *X. persicaria* (Schwein.: Fr.) Berk. & M.A. Curtis, and San Martín and Rogers (1989, 1993a, 1993b, 1995) described 27 species of *Xylaria*, four of *Biscogniauxia*, three of *Camillea*, two of *Kretzschmaria* and one of *Rosellinia*.

In this contribution, the number of xylariaceous fungi known from different vegetation types and substrates of the reserve is expanded to 77 species and 4 varieties, representing 31 % of the total amount of Xylariaceae reported from Mexico up to the present. For each taxon the bibliographic reference of its description is provided.

The specimens of the taxa listed below were collected and identified from 1986 to 1992 and are housed in ITCV.

Table 1. Xylariaceous fungi from El Cielo biosphere reserve in Tamaulipas.

TAXON	SUBSTRATE	MSTF*	CF**	OP +	AE++
<i>Anthostomella</i> cf. <i>melanosticta</i> (Ellis & Everhart, 1887)	Bamboo wood	+	-	-	-
<i>Biscogniauxia mediterranea</i> (San Martín & Rogers, 1993b)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Hypoxyton microplacum</i> (Miller, 1961)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Biscogniauxia nummularia</i> var. <i>merrillii</i> (San Martín & Rogers, 1993b)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Biscogniauxia nummularia</i> var. <i>pseudopachyloma</i> (San Martín & Rogers, 1993b)	Citrus wood	-	-	-	+
<i>Camillea cyclisca</i> (Laessøe et al., 1989)	Wood of unknown Dicotyledoneae	-	-	-	+
<i>Camillea magnifica</i> (San Martín & Rogers, 1993b)	<i>Guazuma ulmifolia</i> wood	+	-	-	-
<i>Camillea obularia</i> (Rogers et al., 1991)	<i>Mangifera</i> wood	-	-	-	+

* Medium size subdeciduous tropical forest; ** Cloud forest; + Oak-pine forest; ++ Agro-ecosystem.

Table 1. Continuation.

TAXON	SUBSTRATE	MSTF*	CF**	OP +	AE++
<i>Camillea punctulata</i> (Laessøe et al., 1989)	<i>Quercus</i> spp. wood	-	+	+	-
<i>Camillea tinctor</i> Laessøe et al., 1989)	<i>Populus</i> sp. and other Dicotyledoneae	+	+	-	-
<i>Creosphaeria sassafras</i> (Ju et al., 1993)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Daldinia clavata</i> (Ju et al., 1996)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Daldinia concentrica</i> (Child, 1932)	<i>Magnolia</i> sp. and other Dicotyledoneae	-	+	+	-
<i>Daldinia grandis</i> (Ju et al., 1996)	<i>Quercus</i> sp.	-	-	+	-
<i>Daldinia eschscholzii</i> (Ju et al., 1996)	Wood of unknown Dicotyledoneae	+	-	-	+
<i>Entonaema liquescens</i> (Rogers, 1981)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Entonaema pallida</i> (Martin, 1938)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Hypoxyton erythrostroma</i> (Miller, 1933)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Hypoxyton haematostroma</i> (San Martín, 1992)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Hypoxyton lenormandii</i> (Ju & Rogers, 1996)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Hypoxyton shearii</i> (Ju & Rogers, 1996)	<i>Quercus</i> wood	-	+	+	-
<i>Hypoxyton subgilvum</i> (Ju & Rogers, 1996)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Hypoxyton subrutilum</i> (Ju & Rogers, 1996)	Wood of unknown Dicotyledoneae	+	-	-	-

Table 1. Continuation.

TAXON	SUBSTRATE	MSTF*	CF**	OP +	AE++
<i>Hypoxylon annulatum</i> (Shear, 1945)	<i>Quercus</i> wood	-	+	+	-
<i>Hypoxylon moriforme</i> (Ju & Rogers, 1996)	<i>Quercus</i> and other Dicotyledoneae	+	-	+	-
<i>Hypoxylon rosellinioides</i> (Miller, 1961)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Hypoxylon stygium</i> (Miller, 1961)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Hypoxylon thouarsianum</i> (Miller, 1961)	<i>Quercus</i> wood	-	+	+	-
<i>Hypoxylon</i> cf. <i>ticinense</i> (Ju & Rogers, 1996)	<i>Crataegus</i> sp. wood	-	-	+	-
<i>Hypoxylon</i> cf. <i>verrucosum</i> (Theissen, 1909)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Kretzschmaria</i> sp. aff. <i>ceptrarioides</i> (San Martín y Rogers, 1993a)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Kretzschmaria</i> sp. aff. <i>heliscus</i> (San Martín & Rogers, 1993a)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Kretzschmariella culmorum</i> (Ju & Rogers, 1994)	Bamboo wood	+	-	-	-
<i>Nemania bipapillata</i> (Pouzar, 1995)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Nemania confluens</i> (Laessøe & Spooner, 1994)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Nemania effusa</i> (Pouzar, 1985)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Nemania subannulalata</i> (Van der Gucht, 1995)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Poronia oedipus</i> (Dennis, 1957)	Cow dung	-	-	-	+
<i>Rosellinia evansii</i> (Laessøe & Spooner, 1994)	Wood of unknown Dicotyledoneae	-	-	+	-

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Table 1. Continuation.

TAXON	SUBSTRATE	MSTF*	CF**	OP +	AE++
<i>Rosellinia sublimbata</i> (San Martín & Rogers, 1995b)	Wood of unknown Monocotyledoneae	+	-	-	-
<i>Ustulina deusta</i> (San Martín, 1992)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Xylaria adscendens</i> (San Martín & Rogers, 1989)	<i>Quercus</i> and other Dicotyledoneae	-	+	-	-
<i>Xylaria alata</i> (San Martín & Rogers, 1989)	Buried Dicotyledoneae remains	+	-	-	-
<i>Xylaria amphithele</i> (San Martín & Rogers, 1989)	Fallen leaves	+	-	-	-
<i>Xylaria anisopleura</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Xylaria brachiata</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Xylaria coccophora</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Xylaria cordovensis</i> (Cooke, 1883)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Xylaria cubensis</i> (Dennis, 1956)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Xylaria curta</i> (Callan & Rogers, 1990)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Xylaria enteroleuca</i> (Miller, 1934)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Xylaria feejeensis</i> (San Martín, 1992)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria frustulosa</i> (Jong & Rogers, 1970)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria gracillima</i> (San Martín, 1992)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria grammica</i> (Dennis, 1956)	Wood of unknown Dicotyledoneae	+	-	-	-

Table 1. Continuation.

TAXON	SUBSTRATE	MSTF*	CF**	OP +	AE++
<i>Xylaria guazumae</i> (San Martín & Rogers, 1989)	<i>Guazuma ulmifolia</i> fruits	+	-	-	-
<i>Xylaria</i> cf. <i>holmbergi</i> (Saccardo, 1882)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria ianthinovelutina</i> (Dennis, 1956)	Fruit (mainly pods) remains	+	-	-	-
<i>Xylaria juniperus</i> var. <i>asperula</i> (Starback, 1901)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Xylaria kegeliana</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria longiana</i> (San Martín & Rogers, 1989)	<i>Quercus</i> wood	-	+	+	-
<i>Xylaria longipes</i> (Rogers, 1983)	<i>Acer</i> wood	-	+	-	-
<i>Xylaria magnoliae</i> (Rogers, 1979)	<i>Magnolia</i> fruit remains	-	+	-	-
<i>Xylaria</i> aff. <i>mellisii</i> var. <i>nuda</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria multiplex</i> (Dennis, 1956)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria musooriensis</i> (Dargan, 1982)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria oxyacanthae</i> (San Martín & Rogers, 1989)	Fruit remains	+	-	-	-
<i>Xylaria persicaria</i> (San Martín & Rogers, 1989)	<i>Liquidambar</i> sp. fruits	-	+	-	-
<i>Xylaria phosphorea</i> (Dennis, 1956)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Xylaria</i> aff. <i>piperiformis</i> (San Martín, 1992)	Soil	+	-	-	-
<i>Xylaria poitei</i> (Rogers & Callan, 1986a)	Wood of unknown Dicotyledoneae	+	-	-	-

Table 1. Continuation.

TAXON	SUBSTRATE	MSTF*	CF**	OP +	AE++
<i>Xylaria polymorpha</i> (Rogers & Callan, 1986b)	Wood of unknown Dicotyledoneae	+	-	-	-
<i>Xylaria scruposa</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	+	+	-	-
<i>Xylaria telfairii</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	-	+	-	-
<i>Xylaria uniapiculata</i> (San Martín & Rogers, 1989)	Wood of unknown Dicotyledoneae	+	-	-	-

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